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#### PSS REPORT

A COMPARISON OF CAREER TRAINEES AND OTHER AGENCY PROFESSIONALS ON PSYCHOLOGICAL TEST SCORES AND SUPERVISORY RATINGS OF JOB PERFORMANCE AND POTENTIAL

Prepared in Conjunction with the Task Force on Systems Analysis of Psychological Data Pertaining to Career Trainees

> Psychological Services Staff Office of Medical Services September, 1969

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#### ABSTRACT

- 1. This study compares test characteristics and job performance of Career Trainees with other Agency professionals (non-CTs). Male CTs and non-CTs in professional level jobs who EODed during FY63-67 constituted the groups studied.
- On all measures of intellectual abilities, the CTs are clearly superior in average performance to the non-CTs. Differences between the two groups on tested Work Preferences-Attitudes clearly indicate that CTs were more eager to accept the wide variety of job duties, demands, and conditions found in the Agency. In the personality-temperament area, CTs obtained scores suggesting they are, on the average, more energetic, outgoing, and especially more socially assertive than non-CTs. In regard to measures of vocational interests, CTs compared to non-CTs seem to have more developed and pronounced interests in social service/administrative sorts of vocations. They also seem to have stronger interests in the verbal persausive and in the verbal creative areas. Finally, CTs have interests more like those of Intelligence Officers -- both in operations and analyst positions -- than do the non-CT professionals.
- 3. On supervisory ratings of actual job performance, CTs and non-CTs received essentially the same distribution

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of ratings. Moreover, on a scale designed to measure overall job potential—defined as the potential for making significant contributions to the Agency in the future—no differences were found. However, on two scales requiring supervisors to estimate an employee's advancement potential, striking differences between CTs and non-CTs occurred. CTs are far more likely to be seen as having the potential to make Senior Level (GS-15) and Supergrade in the Agency. The somewhat curious finding that these groups are seen as having quite discrepant advancement potential, although they are not seen as differing in overall job performance and potential, is discussed.

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In an effort to better understand the character and quality of the Agency Career Trainee population, extensive comparisons were made between a sample of this group and a sample of non-CT professional officers. These two Agency samples were compared on a variety of psychological tests (PATB) and on supervisory ratings of job performance and potential. It was felt that the inter-group similarities and differences revealed by this research would contribute to the definition of the concept of the CT.

The samples compared in this study consisted of all male CTs and non-CTs who had EODed between FY 63-67 in professional level jobs and on whom PATB results and supervisory ratings were available. Entry level grades for the two groups ranged from GS-7 through 12; nearly all were college graduates. At the time job ratings were obtained--January, 1968--the distribution of grade levels among the CTs and non-CTs was essentially the same. A total of 386 CTs (60 Internals, 326 Externals) and 362 non-CTs were included in the intergroup comparisons. STUDY VARIABLES

### Psychological Test Variables:

The variables from the Professional Applicant Test Battery

The groups described above were originally included in the survey of The Committee on Professional Manpower. This committee was established by the Executive Director in late 1967 Approved For Release 2603704/29: CA-REP84-00780F099/1004-80017780 fessional officer personnel in the Agency."

on	which	comparisons	between	groups	were	made	included:

#### Supervisory Job Ratings:

In all, six ratings, three of actual job performance and three of potential, were made by the immediate supervisors of the employees in the study samples. These rating scales were designed to produce relatively more accurate measures of an employee's performance and potential than would be expected from the existing Fitness Report system. Supervisors were alerted to the usual sources of bias in preparing Fitness Reports and, in addition, were assured that the ratings they produced would be used for research purposes only. They would not be shown to the employee nor made part of his personnel record.

Full descriptions of all of the above tests and supervisory ratings may be obtained from the Psychological Services Staff.

#### Statistical Note:

The statistical significance of differences in average tested performance and job ratings of the CT and non-CT Approved For Release 2003/04/29: CIA-RDP84-00780R003100130017-8

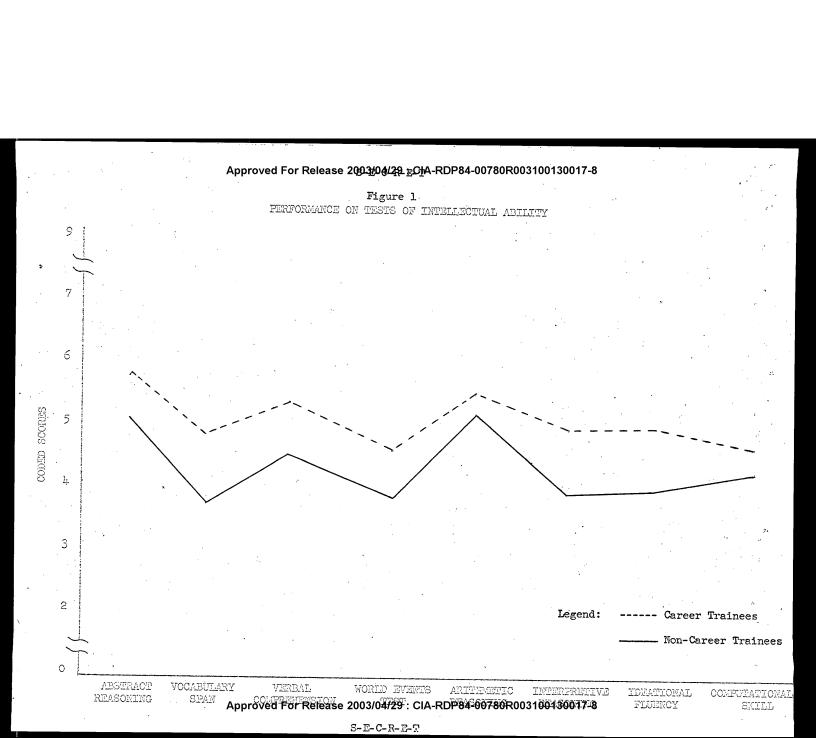
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groups was determined from Z tests. Obtained Z's with associated probabilities (P's) of less than 5% were regarded as statistically significant, i.e., reflecting reliable, non-chance differences. An obtained difference in average scores or ratings significant at the 5% level could be expected to occur by chance alone fewer than 5 times in 100.

It should be noted that differences which are statistically significant may not necessarily be of much practical significance or value. When large samples are involved in comparisons, as was the case in this study, small absolute differences in group averages may possess statistical significance, but such results do not necessarily provide a practical basis for differentiating among individuals in the two groups.

# Measures of Intellectual Abilities

Figure 1 shows the average profiles of the CT and non-CT groups on the PATB measures of intellectual ability. On all eight ability measures, the averages of the CTs are higher, to a statistically significant degree, than those of the non-CTs. The superiority of the CTs clearly exists for both verbal and non-verbal abilities, both reasoning and word knowledge, both abstract and concrete problems. The sizes of the mean differences on these tests are such that, particularly when considered in combination, they constitute a marked discrimination of the groups. On norms



Approved For Release 2063764729 P.CFA-RDP84-00780R003100130017-8 derived from a representative sample of Agency employees, the average score of the CTs on the intellectual measures would stand them at the 60th percentile. The non-CT average intellectual test performance would fall at the 46th percentile.

### Measures of Personality-Temperament

On the seven scale personality-temperament schedule, group differences reaching statistical significance were found in three cases. The CT group obtained scores suggesting they are, on the average, more energetic, outgoing, and especially more socially assertive than non-CTs. Differences in group averages in the personality-temperament area are far less pronounced than those in the intellectual or work attitude areas.

### Measures of Work Preferences - Attitudes

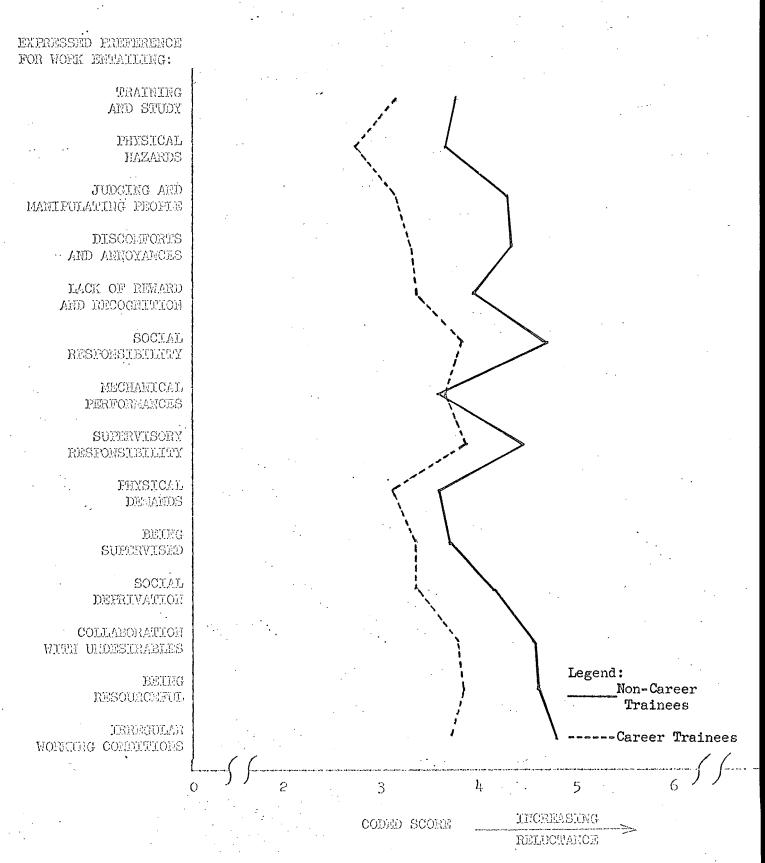
The Work Preference Schedule requires an individual to indicate his degree of willingness to accept a wide variety of job conditions and demands, particularly ones associated with the intelligence prefession. Generally speaking, this schedule provides an index of the applicant's adaptability and motivation to secure a career with the Agency.

The average scores of CTs and non-CTs on the Schedule are presented in Figure 2. Significant differences between the groups were found on every scale except Mechanical Performances. It can be seen that CTs clearly and consistently indicated, at the time of testing, the greater acceptance of and preference for the wide variety of job demands found in the Agency. It should be pointed out that for

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#### S-E-C-R-E-T Approved For Release 2003/04/29 : CIA-RDP84-00780R003100130017-8 Figure 2

WORK ATTITUDE PROFILES



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Approved For Release 2003/04/29: CIA-RDP84-00780R003100130017-8 both CTs and non-CTs the average profiles fell in what is generally interpreted as the "adaptable" range.

Measures of Vocational Interests

This inventory, consisting of 45 scales, requires an individual to express his interests and preferences in a variety of areas—jobs, leisure time pursuits, social relations, etc. The responses are compared with those of groups of people actually in specific occupations. It is assumed that, to the degree there is a match in interests with a group in a given occupation, the individual would probably be suited for work in that or a related area. Included as occupational reference groups are four Agency groups—Intelligence Officers, Personnel Officers, Security Officers, and Logistics Officers.

It was found that CTs compared to non-CTs have more developed and pronounced interests in social service/administrative vocations. They also seem to have stronger interests than the non-CTs in the verbal persuasive and in the verbal creative areas. Non-CTs, by comparison, have interests more in common with people in the scientific and outdoor technical areas. Finally, on the Agency Intelligence Officer scale, which was developed on people in both operations and analysis, the CTs score higher, that is, have interests more in common with this combined group than do the non-CTs.

## Language Aptitude

Overall, CTs score at the upper end of the "average" range, non-CTs at the lower end, on the Language Aptitude test in PATB. The difference is highly reliable.

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## SUPERVISORY RATINGS OF JOB PERFORMANCE AND POTENTIAL

The six job ratings, three of performance, three of potential, obtained on the CT and non-CT employees are described below.

Employees were rated on overall job performance and on the quantitative and qualitative aspects of that performance. Each of these ratings was made on a 7-point scale modeled after the WAPSO system but with the addition of a category between Strong and Outstanding and one between Proficient and Strong. This was done to introduce greater spread or variance among the ratings of employees.

The three potential measures included one of overall potential, defined as the employee's potential for making significant contributions in the future to the Agency, and two of advancement potential. The latter required the supervisor to indicate whether the employee in his judgment had the potential for becoming a Senior Level officer--GS-15, (Yes or No) and a Supergrade (Yes or No). Overall potential was rated on a 5-point scale running from Weak to Outstanding.

Between CTs and non-CTs there are no practically or statistically significant differences on any of the three ratings of job performance. Moreover, on the scale designed to measure overall potential, no differences were found between groups. The average of the two groups on the three performance measures falls midway between a rating of

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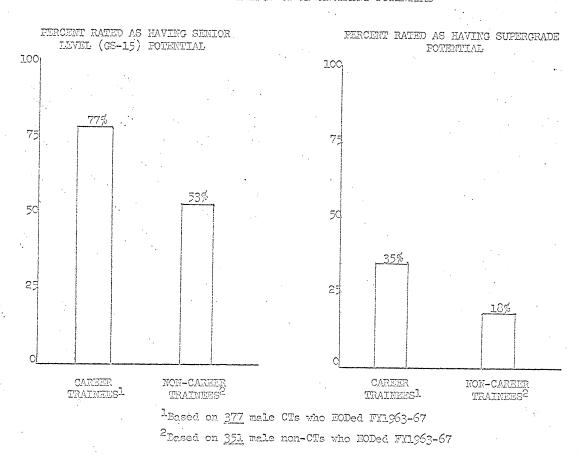
"Between Strong and Proficient" and "Strong." On the overall potential rating, group averages fall slightly below "Above Average."

On the two scales requiring supervisors to estimate advancement potential, striking differences were found between CTs and non-CTs. These differences are shown in Figure 3. It can be seen that CTs are far more likely than non-CTs to be rated as having the potential to make both Senior Level (77% to 53%) and Supergrade (35% to 18%).

The marked differences on rated advancement potential are especially curious in light of the finding of no group differences on any of the performance measures or on the overall potential measure. Evidently in rating advancement potential, supervisors are responding at least in part to an image or sterotype of the CTs which does not have demonstrable job performance correlates. This speculation led us to question whether CTs at every level of current job performance enjoyed an edge over non-CTs in being viewed as having the potential for making the highest grades. Results of our analyses are shown in Table 1. It was found that at every performance level a greater percentage of CTs were seen as having the potential for becoming Senior Level and Supergrade officers. However, this advantage was not constant throughout the performance range. The data in the right-hand column of Table 1 indicate that at the extremes

Figure 3

COMPARISON OF CAREER TRAINEES AND NON-CAREER TRAINEES ON SUPERVISORY RATINGS OF ADVANCEMENT POTENTIAL,



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# Table 1 ADVANCEMENT POTENTIAL AS A FUNCTION OF PERFORMANCE

## RATED SENIOR LEVEL (GS-15) POTENTIAL

PERFORMANCE CATEGORY	CT <sup>i</sup>	NON-CT	Difference (CT - NON-CT)
OUISTANDING; BETWEEN STRONG AND OUISTANDING	98%	90%	8%
STRONG	93%	67%	26%
BETWEEN STRONG AND PROFICIENT	74 <i>%</i>	30%	竹花為
PROFICIENT; ADEQUATE; WEAK	36%	9%	. 27%
OVERALL	77%	50%	27%

#### RATED SUPERGRADE POTENTIAL

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PERFORMANCE CATEGORY	CLE.	NOW-CT	Difference (CT - NON-CT)
OUTSTANDING; BETWEEN STRONG AND OUTSTANDING	71%	56%	15%
STRONG	51.%	19%	32%
BETWEEN STRONG AND FROFICIENT	15%	3%	12%
PROFICIENT; ADEQUATE; WEAK	7%	. 1%	6%
OVERALL	35%	18%	17%

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of the performance continuum CTs are given less of an advantage than they are in the middle range. This suggests that the advancement potential ratings of the strongest and weakest performers are made relatively independently of their status as CTs or non-CTs. It is in the middle range of performance, where most employees fall, that having CT status seems to have its greatest effect on supervisory ratings.